



United States Department of Agriculture

RESEARCH, EDUCATION, AND ECONOMICS  
AGRICULTURAL RESEARCH SERVICE  
[www.ars.usda.gov](http://www.ars.usda.gov)

*"Solving Problems for the Growing World"*

**VACANCY ANNOUNCEMENT**

**Announcement Number:** ARS-X5E-0358  
Demo/Alternative Merit  
Promotion

**Position Title/Series/Grade:**  
Air Conditioning Equipment Mechanic  
WG-5306-10  
*More than one position may be filled from this  
announcement*

**Promotion Potential:** WG-10

**Employment Type:** Full-time - Permanent

**Grade and Salary Range:**  
WG-10 \$21.24 - \$24.82 Per Hour

**Location of Position:**  
Research Facilities Solutions  
Systems Maintenance Branch  
Beltsville, MD

**Who Can Apply** (You **must** include a statement in your  
application that you are a U.S. citizen to be considered for this  
position): All U.S. Citizens

**Opening Date:** September 19, 2005

**Closing Date:** Open Until Filled – First cut-off date  
will be October 11<sup>th</sup> with subsequent cut-off dates  
every three weeks

For copies of vacancy announcements and/or application  
materials, please call (301) 504-1482. For additional  
information regarding employment opportunities, please  
visit <http://www.afm.ars.usda.gov/hrd/jobs/apply.htm>.

**Contact Information**

**Human Resources Specialist:**  
Susan Mooring  
(301) 504-1360

**DC Relay Service:** (202) 855-1234 (TDD)

**Send Applications to:**  
USDA, Agricultural Research Service  
Human Resources Division  
Attn: Susan Mooring  
5601 Sunnyside Avenue, Stop 5104  
Beltsville, MD 20705-5104  
**Fax:** (301) 504-1535  
**E-mail:** [scirecruit@ars.usda.gov](mailto:scirecruit@ars.usda.gov)

Applications must be received, e-mailed or faxed by the  
cut-off date of the announcement, to be considered  
within that cut-off period. Applications received in  
Government envelopes will not be considered.

Please take advantage of the Application Package  
Checklist at the end of this announcement to ensure your  
application is complete.

**Applications will also be accepted from USDA Surplus and Federal Displaced Employees in the commuting  
area.**

## **Major Duties:**

This position is located in the Facilities Services, Systems Maintenance Branch. The selectee will perform tasks related to refrigeration and air conditioning systems in offices, laboratories, special purpose areas and similar facilities. Duties will include, but are not limited to planning and calculating heat loads, humidity and refrigeration requirements; preparing sketches, circuit diagrams and interpreting blueprints and specifications; installing, repairing and maintaining a variety of commercially made laboratory equipment, such as freeze dryers and refrigerated centrifuges; installing, repairing and maintaining commercially designed climatic controls and systems in laboratory or other facilities; installing, servicing and maintaining control systems using electric, electronic, solid state and pneumatic controls; installing, maintaining, adjusting, repairing, dismantling and overhauling large, complex refrigeration and air conditioning systems; detecting and correcting leaks in refrigeration systems, and testing overhauled or reconditioned systems.

**Qualifications Required:** Your education and experience will be evaluated against all qualification requirements (basic and any additional requirements) listed below.

### **Basic Requirements**

Applicants must have experience and/or training of sufficient scope and quality to perform the duties required. Applicants will be rated in accordance with their knowledge and skill in the job elements listed below.

1. Ability to do the work of an Air Conditioning Equipment Mechanic without more than normal supervision. (This is the screen-out element. Applicants who are not rated satisfactory on the screen-out will not be rated on the remaining elements).
2. Knowledge of equipment assembly, installation, repair, etc.
3. Technical Practices (theoretical, precise, artistic)
4. Ability to interpret instructions, specifications, etc. (includes blueprint reading).
5. Ability to use and maintain tools and equipment.
6. Troubleshooting.

**If qualifying all or in part based on your education, please submit a copy of your college transcripts OR a list of college courses with credit hours, dates completed, and grades received. If this information is not provided, your education may not be appropriately evaluated and you may lose consideration for this position. If your qualifications are based in any part on education and you are selected for this position, you will have to provide an official copy of your academic transcripts prior to entering on duty.**

Applicants who do not meet the screen-out element will not receive further consideration. **Supplemental Questionnaire:** Applicants will be required to complete a supplemental questionnaire. **The questionnaire is attached.** Applicants who fail to complete and return the questionnaire **will not** receive further consideration.

## **Working Conditions and Other Considerations:**

**WORKING CONDITIONS:** The work is performed inside and outside. Incumbent is subject to burns, electrical shocks, cuts and bruises and sudden changes in temperature from hot to cold. Is exposed to the possibility of toxic effects on eyes, skin and respiratory system when working with refrigerant gases.

As a condition of employment, the incumbent must be available for on-call duty outside normal duty hours. Employees may be required to work weekends, holidays, or before/after normal duty hours when necessary. Employee may be required to report for duty during emergencies, critical periods or during times when the Government is closed due to inclement weather.

#### CERTIFICATION/LICENSE REQUIREMENTS

Must possess and maintain a Universal (Types I, II and III) technician certification for refrigerant transition and recovery.

Must possess and maintain a valid State-issued driver's license to operate a Government-owned motor vehicle.

#### **Additional Requirements:**

A PHYSICAL EXAMINATION IS REQUIRED FOR NEW FEDERAL APPOINTEES PRIOR TO APPOINTMENT.

PHYSICAL REQUIREMENTS: Considerable physical effort is used when working on parts or systems that are in hard to reach places. Employee must bend, stoop, kneel and work in tiring and uncomfortable positions. Must frequently carry and set up parts and equipment that weigh 30 to 50 pounds.

**SUPPLEMENTAL QUESTIONNAIRE**  
**Air Conditioning Equipment Mechanic**  
**WG-5306-10**  
**ARS-X5E-0358**

**ELEMENT 1**

**Ability to do the work of an Air Conditioning Mechanic without more than normal supervision**

(This is the screen-out element. Applicants who are not rated satisfactory on the screen-out will not be rated on the remaining elements).

Describe your experience working with large air conditioning systems that consist of a variety of functions, such as heating, cooling, humidifying, dehumidifying, cleaning, filtering and/or circulating air. Include the model and the functions that made up the system.

Describe your level of independence planning and laying out major work assignments.

Indicate below, your experience installing and repairing air conditioning systems with specific requirements and/or for various structures. *Be sure to check all that apply.*

- |   |  |
|---|--|
| <input type="checkbox"/> Warehouse              | <input type="checkbox"/> Communication Centers             |
| <input type="checkbox"/> Ships                  | <input type="checkbox"/> Electronic Data Processing Center |
| <input type="checkbox"/> Hospitals              | <input type="checkbox"/> Operating Rooms                   |
| <input type="checkbox"/> Apartment complex      | <input type="checkbox"/> Laboratories                      |
| <input type="checkbox"/> Large office buildings | <input type="checkbox"/> Link Training Rooms               |
| <input type="checkbox"/> Submarines             | <input type="checkbox"/> Other (specify)                   |

Indicate your experience working with systems using a variety of air conditioning methods. *Check all that apply*

- |   |  |
|---|--|
| <input type="checkbox"/> Mechanical Compression | <input type="checkbox"/> Vapor Compression                       |
| <input type="checkbox"/> Absorption             | <input type="checkbox"/> Steam Jet Cycle (breezes/swamp coolers) |
| <input type="checkbox"/> Air Cycle              | <input type="checkbox"/> Water Cooled Condensers                 |

**ELEMENT 2-E****Knowledge of Equipment Assembly, Installation, Repair, etc.**

List the different types of equipment, assemblies, or components on which you have worked. Use the “type of experience” codes below that best describes your level of experience with each type of equipment listed. *Use all codes that apply*

1-Assembled

2-Disassembled

3-Installed

4-Tested

5-Calibrated

6-Adjusted

7-Maintained

8-Repaired

9-Overhauled

10-Troubleshooting

11-Modified

**Equipment****Mft./Model****Size/Capacity****Type of Experience**

## ELEMENT 25-E

### Technical Practices (theoretical, precise, artistic)

Describe an experience when you were required to use judgment and creativity to complete an assignment.

Use the codes below that best describes your knowledge of the following principles and theories.

1-Some knowledge/require assistance

2-Expert Knowledge

3-Experience training others

4-No knowledge

\_\_\_ Refrigeration Cycle  
\_\_\_ Refrigerant tables  
\_\_\_ Pressure-temperature characteristics

\_\_\_ Heat transfer laws  
\_\_\_ Calculate air flow

Using the same codes as above, describes your knowledge of the following:

#### Compressors

\_\_\_ Gear  
\_\_\_ Reciprocating  
\_\_\_ Centrifugal  
\_\_\_ Rotary pump  
\_\_\_ Other (Specify)

#### Refrigerant Controls

\_\_\_ Low & high pressure side floats  
\_\_\_ Automatic thermostatic expansion valves  
\_\_\_ Capillary  
\_\_\_ Choke types  
\_\_\_ Other (specify)

#### Motor Controls

\_\_\_ Hermetically sealed motors  
\_\_\_ Pressure controls  
\_\_\_ Thermostatic motor  
\_\_\_ Full defrosting controls  
\_\_\_ Semi-automatic controls  
\_\_\_ Relays  
\_\_\_ Other (Specify)

## ELEMENT 75-B

### Ability to interpret instructions, specifications, etc. (Includes blueprints and schematics)

Check the response that describes your work situations.

- \_\_\_\_\_ Under close supervision, follows specific instructions.
- \_\_\_\_\_ Follows work orders and work from sketches or basic blueprints which are complete in terms of materials and methods used.
- \_\_\_\_\_ Interprets complex instructions, sketches, blueprints, diagrams, and/or building codes.
- \_\_\_\_\_ Use judgment and experience to adapt specifications.
- \_\_\_\_\_ Responds to frequent, new or changed instructions or specifications.
- \_\_\_\_\_ Provides guidance and instructions to others on the full range of specifications.

Choose the number that best describes your experience with the following types of instructions you have followed to do your work and put that number in the appropriate blank(s).

- |                       |                                     |
|-----------------------|-------------------------------------|
| 1. Have not used      | 2. Used with assistance from others |
| 3. Used independently | 4. Provided instructions to others  |

- |   |                         |                            |
|---|-------------------------|----------------------------|
| _____ Blueprints                            | _____ Building Codes    | _____ Building Plans       |
| _____ Manufacturers' specs                  | _____ Technical Manuals | _____ Wiring Diagrams      |
| _____ Work Orders                           | _____ Drawings          | _____ Engineering Drawings |
| _____ Drawings with different trade symbols |                         |                            |

## ELEMENT 81

### Ability to use and maintain tools and equipment

Choose the code that best describes your ability to use the tools listed below.

- |                       |                                     |
|-----------------------|-------------------------------------|
| 1. Have not used      | 2. Used with assistance from others |
| 3. Used independently | 4. Provided instructions to others  |

- |                         |                          |                               |
|-------------------------|--------------------------|-------------------------------|
| _____ Manometer         | _____ Anamoter           | _____ Hermatic Test Equipment |
| _____ Thermocouples     | _____ Psychrometer       | _____ Torque Wrench           |
| _____ Micrometer        | _____ Depth Gauge        | _____ Vernier Calipers        |
| _____ Manifold Assembly | _____ Air Velocity Meter | _____ Voltmeter               |
| _____ Meggar            | _____ Ohmmeter           | _____ Pressure Gauge          |
| _____ Hydrometer        | _____ Leak Detector      | _____ Bender                  |
| _____ Flaring Tool      | _____ Swedging Tool      | _____ Oxyacetylene Torch      |
| _____ Pipe Threader     | _____ Pipe Cutter        | _____ Drill Press             |
| _____ Reamer            | _____ Hand Drill         |                               |

**ELEMENT 95**  
**Troubleshooting**

Check the types of experience you have had in resolving problems.

- ☐ Locate and resolve simple problems or malfunctions through sound or appearance.
- ☐ Locate problems or malfunctions through detailed inspection, advanced circuit testing or diagnostics, and using testing instruments, resolve problems and malfunctions with the help of other journeymen.
- ☐ Locate problems or malfunctions through detailed inspection, advanced circuit testing or diagnostics, and using testing instruments, resolve problems and malfunctions independently,
- ☐ Locate and diagnose difficult problems or malfunctions requiring specialized knowledge.
- ☐ Provide consultation to other workers in resolving difficult problems or malfunctions.

**I possess a valid Motor Vehicle Operator's License (Driver's License).**

☐ Yes ☐ No

***IF YOU ANSWERED YES, PLEASE ATTACH PROOF OF POSSESSION – your application will not be considered without proof***

**I possess a valid Universal (Type I, II, and III) technician certification for refrigerant transition and recovery.**

☐ Yes ☐ No

***IF YOU ANSWERED YES, PLEASE ATTACH PROOF OF POSSESSION – your application will not be considered without proof***

**I certify that all of the preceding statements on this SUPPLEMENTAL QUESTIONNAIRE are correct and true to the best of my knowledge.**

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**Signature & Date**



## **Other Important Information**

### **Benefits Package:**

A Benefits Package is authorized for this position. Additional information about Federal benefits can be obtained at [www.usajobs.opm.gov/ei61.htm](http://www.usajobs.opm.gov/ei61.htm).

### **Veteran's Preference:**

For further details, call the U.S. Office of Personnel Management (OPM) at 703-724-1850 or TDD 978-461-8404. Select General Information on the Federal Employment Policies and Procedures, and then Veterans Preference and Special Appointing Authorities for Veterans. Visit their VetGuide website at <http://www.opm.gov/veterans/html/vetguide.asp>.

### **Relocation Expenses:**

Payment of relocation expenses will be determined in accordance with P&P 412.5, Recruitment and Retention Incentives and Other Special Pay, Sections 6 and 7, as amended by Bulletins 03-402 and 05-412.5, which may be found at <http://www.afm.ars.usda.gov/ppweb/412-05.htm#H10>. See also [http://www.afm.ars.usda.gov/hrd/staffing\\_recruit/reloweb.htm](http://www.afm.ars.usda.gov/hrd/staffing_recruit/reloweb.htm).

### **Financial Disclosure Requirement:**

Federal employees are subject to prohibitions against officially dealing with outside organizations in which they have a financial interest. You may be required to submit a financial disclosure report if hired for this position.

### **False statements:**

If you make a false statement in any part of your application, you may not be hired; may be fired after beginning work; or may be fined or jailed.

### **Optional Form 306, (Declaration for Federal Employment):**

If you are selected for this position, you will be required to complete this form before an offer may be made.

### **USDA Surplus/Federal Displaced Employees:**

USDA Surplus/Federal displaced employees must submit documentary evidence of eligibility. Well qualified surplus and displaced employees within the local commuting area will receive selection priority as provided by OPM regulations. Well-qualified means the applicant meets the basic qualification and eligibility requirements and all selective placement factors; is rated above minimally qualified against the KSAs or quality criteria; and is able to satisfactorily perform the duties of the position upon entry. Applicants must submit the following:

- 1) a copy of your RIF Separation Notice or Certification of Expected Separation or other documentation indicating that you are a surplus employee;
- 2) evidence of full performance level of current position;
- 3) a copy of your most recent performance appraisal; and
- 4) a copy of your most recent SF-50, Notification of Personnel Action, to verify reassignment eligibility.

### **Selective Service System:**

Males over age 18 who were born after December 31, 1959, must have registered with the Selective Service System (or have an exemption) to be eligible for Federal employment.

**Reasonable Accommodation:**

Reasonable accommodation may be provided to applicants with disabilities. If you need a reasonable accommodation for any part of the application and hiring process, or have questions regarding reasonable accommodation and/or accessibility for any part of the application and hiring process, please contact the Disability Program Manager on 202-720-6161 or through the DC Relay Service on 202-855-1234 (TDD). The decision to grant reasonable accommodation is made on a case-by-case basis.

**Civil Rights Policy Statement:**

The U.S. Department of Agriculture (USDA) is an equal opportunity employer and provider. Discrimination is prohibited in all USDA programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's Target Center on 202-720-2600 (voice and TDD).

**To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 or call 202-720-5964 (voice and TDD).**

## Application Package Checklist

**If application packages do not contain all of the requested information, you may lose consideration for the job. To help you ensure your application fully outlines your qualifications and eligibility for this position, please submit the following documentation.**

- ☐ Optional Form 612 (Optional Application for Federal Employment), SF-171 (Application for Federal Employment), Resume, Curriculum Vitae, or other document outlining your qualifications (Go to <http://www.opm.gov/forms/html/of.asp> and scroll down to obtain the OF-612).

**The following information is required of all applicants:**

- ☐ Announcement number, title, and grade(s) of the position
- ☐ Full name, mailing address (including zip code) and day and evening phone numbers (with area code)
- ☐ Social security number
- ☐ Statement that you are a U.S. citizen (if not using the OF-612 or SF-171)
- ☐ Copy of DD Form 214 (Certificate of Release or Discharge from Active Duty) (if claiming veterans preference) (Visit the following web site for additional information:  
<http://www.opm.gov/employ/veterans/html/vetguide.asp>)
- ☐ SF-15 (Application for 10-point Veteran's Preference) plus the support documentation required by this form (if claiming 10-point veterans preference) (Go to the web site at <http://www.opm.gov/forms/html/sf.asp> to obtain form.)
- ☐ Paid and non-paid work experience related to the position. For each period of work experience include:
  - \_\_\_ Job title
  - \_\_\_ Series/grade (if Federal employment)
  - \_\_\_ Duties and accomplishments
  - \_\_\_ Employer's name and address
  - \_\_\_ Supervisor's name and contact information
  - \_\_\_ Starting and ending dates of employment (at least month & year)
  - \_\_\_ Number of hours worked per week
  - \_\_\_ Salary
  - \_\_\_ Indicate if we may contact current supervisor/employer
- ☐ Other job related information, such as training courses (title & year); skills (e.g., other languages, computer software/hardware, tools, etc.)
  - \_\_\_ Certificates/licenses (current)
  - \_\_\_ Honors, awards, and special accomplishments
  - \_\_\_ Supplemental questionnaire if applicable (usually for Federal Wage System positions - WG, WL, WS)
- ☐ Copy of college transcripts (if qualifying all or in part on the basis of education for this position) (If you have non-conventional education, e.g., foreign study, continuing education units, life experience, etc., go to the web site at <http://www.opm.gov/qualifications/SEC-II/s2-e4.htm#e4a> and look under the heading

“Other Education” for information governing acceptability of this type of education.)

- ☐ Copy of SF-50 (Notification of Personnel Action) to verify possession of competitive civil service status (if you are a current or previous federal employee)
- ☐ Copy of most recent performance appraisal (if you are a current federal employee)
- ☐ Second copy of application package (if the position is open to candidates outside the federal government AND if you are a current federal employee or a candidate with reinstatement eligibility and wish to be considered under both merit promotion and competitive examining procedures).
- ☐ Support documentation for eligibility for special hiring authorities, such as disability, Peace Corps service, etc. (If you have questions about whether you are eligible for a particular hiring authority, please call the servicing HR specialist or visit the web site at <http://www.usajobs.opm.gov/a2.htm> and scroll down to the subject heading, “Category”.)
- ☐ Support documentation if you are a USDA surplus or federal displaced employee (See pertinent section under “Other Important Information” below.)
- ☐ Self-certification of typing speed (if required as a basic qualification for the position)
- ☐ While not required, a separate response to the required knowledge, skills, and abilities (KSAs listed under Specialized Experience) and Selective Placement Factor(s), if present, for this position may better highlight your specific qualifications for this position. (For an explanation of KSAs, go to the web site at <http://www.ars.usda.gov/careers/whatksa.html> ).

**If this is your first time applying for a federal job, or if you wish to view more detailed information about various aspects of applying for federal jobs, go to <http://www.opm.gov/forms/html/of.asp> and scroll down to access the Office of Personnel Management (OPM) Optional Form 510.**